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PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Basil et al.	Attorney Docket:	0960-021
Serial No:	10/010,894	Examiner:	Not Assigned
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TITLE:
CAPACITY SCALING AND FUNCTIONAL ELEMENT REDISTRIBUTION WITHIN AN IN-BUILDING COAX CABLE INTERNET ACCESS SYSTEM

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Box Amendment – No Fee
Washington D.C. 20231

Sir:

In order to correct a typographical error and to comport the text with Figure 1, please amend the specification as follows:

Page 4, line 9, delete the numeral [**64**] and insert - - **62** - -.

In conformity with 37 CFR 1.121(b)1, a marked-up page 3 and a clean replacement page 3, as amended, are included for reference. This amendment corrects an obvious error and does not add any new matter.

Dated: May 3, 2002

Respectfully submitted,

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referenced above, the server **36** is comprised of a number of components shown here as RF modem **37**, protocol converter **38**, and NIC unit **39**. The operation of these components was described in the '378 application and does not need to be repeated here. A coax tree and branch network **50** connects the head end **42** of the tree and branch network to a set of splitter devices.

A partial set of splitter devices is shown in **Figure 1** as splitters **52**, **54**, and **56**. Thus, the signal at head end **42** is present at the input to client modem devices **60**, **62**, **64**, **66**, **68**, and **70**. Output jacks on the client modem devices allow for connection of televisions (**71**, **75**, **80**, **84**, **86**, and **90**), devices such as personal computers (**72**, **81**, **87**, and **92**), and telephones (**74**, **77**, **78**, **82**, **85**, and **88**). Note that two telephones **77** and **78** are connected to modem device **62**. Each of the two telephones is connected to its own telephone port. As the cable TV signal does not need to be processed within the modem devices, this signal can be taken from an external diplexer positioned upstream of the modem device rather than as shown from an output on the modem device. Note elements **94** and **96** will be discussed below.

The '378 application includes an RF coax transmission system in which all information flowing downstream (from **42** to the client modem devices **60**, **62**, **64**, **66**, **68**, and **70**) is formatted according to DVB/MPEG-2 structure to facilitate multimedia applications.

In order to assist in illustrating the concepts of the present invention, the preferred formats for use in the downstream and upstream transmissions in a particular coaXmedia system are illustrated in **Figure 2**. The specifics of the data structure included for an example and do not represent mandatory aspects of the present invention.

The downstream transmission frame **100** is a 204-byte MPEG/DVB frame. The downstream transmission frame **100** is comprised of: a SYNC byte **104** (of value 47 hex for frame or packet start identification and B8 hex, i.e. inverted 47 hex for multi-frame identification); followed by two bytes used by MPEG2 for packet identification **108** ("PID"); followed by an additional byte reserved for packet type identification **112**.a payload of 184 bytes; and a FEC field **120** of 16 bytes. The FEC field **120** is followed by a SYNC byte **104** from the next frame.

Any downstream data (whether IP, voice, video, etc.) is placed in one or more data sub-packets **130.** One or more data sub-packets are carried in the MPEG frame payload **116**. The specific organization of the data-sub packets is not important to this invention but the data sub-

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A partial set of splitter devices is shown in **Figure 1** as splitters **52, 54,** and **56**. Thus, the signal at head end **42** is present at the input to client modem devices **60, 62, 64, 66, 68,** and **70**. Output jacks on the client modem devices allow for connection of televisions (**71, 75, 80, 84, 86,** and **90**), devices such as personal computers (**72, 81, 87,** and **92**), and telephones (**74, 77, 78, 82, 85,** and **88**). Note that two telephones **77** and **78** are connected to modem device [**64**] **62**. Each of the two telephones is connected to its own telephone port. As the cable TV signal does not need to be processed within the modem devices, this signal can be taken from an external diplexer positioned upstream of the modem device rather than as shown from an output on the modem device. Note elements **94** and **96** will be discussed below.

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